#3 n. H 5-0

PAGE: 1

46

RAW SEQUENCE LISTING PATENT APPLICATION US/09/480,977

DATE: 03/17/2000 TIME: 02:47:09

INPUT SET: \$35068.raw

This Raw Listing contains the General Information Section and up to the first 5 pages.

```
1
                                       SEQUENCE LISTING
 2
     (1)
            General Information:
 3
 4
        (i) APPLICANT: Godowski, Paul J., Mark, Melanie Rose, Zhang, Dong Xiao
 5
 6
 7
       (ii) TITLE OF INVENTION: ErbB Receptor-Specific Neuregulin Related
 8
                                 Ligands and Uses Therefor
 9
      (iii) NUMBER OF SEQUENCES: 23
10
11
12
       (iv) CORRESPONDENCE ADDRESS:
                                                        ENTERED
13
            (A) ADDRESSEE: Genentech, Inc.
14
            (B) STREET: 1 DNA Way
15
            (C) CITY: South San Francisco
16
            (D) STATE: California
            (E) COUNTRY: USA
17
18
            (F) ZIP: 94080
19
20
        (v) COMPUTER READABLE FORM:
21
            (A) MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk
            (B) COMPUTER: IBM PC compatible
            (C) OPERATING SYSTEM: PC-DOS/MS-DOS
24
            (D) SOFTWARE: WinPatin (Genentech)
25
       (vi) CURRENT APPLICATION DATA:
26
27
            (A) APPLICATION NUMBER: 09/480,977
28
            (B) FILING DATE:
            (C) CLASSIFICATION:
29
30
       (vii) PRIOR APPLICATION DATA:
31
32
            (A) APPLICATION NUMBER: 08/899,437
33
            (B) FILING DATE: 24-Jul-1997
34
35
     (viii) ATTORNEY/AGENT INFORMATION:
36
            (A) NAME: Conley, Deirdre L.
37
            (B) REGISTRATION NUMBER: 36,487
38
            (C) REFERENCE/DOCKET NUMBER: P1084R1
39
40
       (ix) TELECOMMUNICATION INFORMATION:
41
            (A) TELEPHONE: 650/225-2066
42
            (B) TELEFAX: 650/952-9881
43
     (2) INFORMATION FOR SEQ ID NO:1:
44
45
        (i) SEQUENCE CHARACTERISTICS:
```

(A) LENGTH: 2538 base pairs

RAW SEQUENCE LISTING PATENT APPLICATION US/09/480,977

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(B) TYPE: Nucleic Acid (C) STRANDEDNESS: Single (D) TOPOLOGY: Linear (ix) FEATURE: (A) NAME/KEY: mouse NRG3 nucleic acid (B) LOCATION: 1-2538 (C) IDENTIFICATION METHOD: (D) OTHER INFORMATION: (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1: CCTGACCGGC CGGCCGCCC CGGCCCGGTC TCGCCCCTCT ACCGAGCGCC 50 TCGCCGCCCC CTCCCCGGCC CGCGTCCCT CCCCCGTCCT CTCCTCCCCG 100 CCCGCCGCCC GCCTCTCGGG GGGAGGGGCG TGGGGGCAGG GAGCCGATTT 150 GCATGCGGCC GCCGCGGCCG CTGCCTGAGC CGGAGCCCGC CGCCGCCGGA 200 GCCCGCGCCC GCGCCCGCG CCGGCCCCATG CCTCTGGCGC 250 GGCCCTCGGG GGGGCGAAGG TGAAGATCGG CTCCTAGGAT GAGTGAAGGG 300 GCGGCCGGTG CCTCGCCACC TGGTGCCGCT TCGGCAGCCG CCGCCTCAGC 350 CGAGGAGGC ACCGCGGCGG CTGCGGCGGC GGCGGCGGGGGCC 400 CGGACGGCGG CGGAGAAGGG GCGGCCGAAC CCCCCCGGGA GTTACGCTGT 450 AGCGACTGCA TCGTGTGGAA CCGGCAGCAG ACGTGGTTGT GCGTGGTGCC 500 TCTGTTCATC GGCTTCATCG GCCTGGGGCT CAGCCTCATG CTGCTTAAAT 550 GGATCGTGGT AGGCTCCGTC AAGGAGTACG TGCCCACGGA CCTGGTGGAC 600 TCCAAGGGAA TGGGCCAGGA CCCCTTCTTC CTCTCCAAGC CCAGCTCTTT 650 CCCCAAGGCT ATGGAAACCA CCACAACAAC CACTTCTACC ACGTCCCCCG 700 CCACCCCTC TGCCGGCGC GCCGCTTCTT CCAGGACGCC TAACCGGATT 750 AGCACCCGCT TGACCACCAT CACACGGGCA CCCACCCGCT TCCCTGGGCA 800 CCGGGTTCCC ATCCGGGCTA GCCCGCGCTC TACCACAGCA CGGAACACTG 850 CTGCCCCTCC GACGGTCCTG TCCACCACGG CCCCTTTCTT CAGTAGCAGC 900 ACGCCCGGCT CCCGACCCCC GATGCCAGGA GCCCCCAGTA CGCAGGCGAT 950 GCCTTCCTGG CCCACTGCGG CGTATGCTAC CTCCTCCTAC CTCCACGATT 1000

RAW SEQUENCE LISTING PATENT APPLICATION US/09/480,977

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					,	NPUT SET: S35068.raw
100	CCACTCCCT	CTGGACCCTG	TCACCCTTTC	AGGATGCTGC		
101						
102	TCCTCCTCAC	C CCTCTTCCAC	CTCCTCCACT	, YCCYCCYCCC	CAGAAACTAG	3 1100
103 104	CACCACCCC	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	CM3 C3 3 C3 M3	CTCC1 CTC1 1		
105	CACCAGCCC	C AAATTTCATA	CIACAACATA	CTCCACTGAA	CGATCTGAGC	: 1150
106	ACTTCAAACO	CTGTCGAGAC	AAGGACCTGG	ССТАТТСТСТ	СУУДСУДСТ	1200
107				COINTIGICI	CARIGAIGGI	1200
108	GAATGCTTTC	TGATTGAGAC	CCTGACAGGA	TCCCATAAGC	ACTGTCGGTG	; 1250
109						
110	CAAGGAAGGC	TACCAAGGAG	TCCGTTGTGA	TCAATTTCTG	CCGAAAACAG	1300
111						
112 113	ACTCCATCTI	ATCGGATCCA	ACAGACCACT	TGGGGATTGA	ATTCATGGAG	1350
113	ACTCAACACC	TTTATCAAAG	CCACCTCCTC		CMA MCA MCMM	
115	AGIGAAGACG	TITATCAAAG	GCAGGIGCIG	TCAATTTCAT	GTATCATCTT	1400
116	TGGAATTGTC	ATCGTGGGCA	TGTTCTGTGC	AGCATTCTAC	ттсаааасса	1450
117						. 1130
118	AGAAACAAGC	TAAACAAATT	CAGGAGCACC	TGAAAGAGTC	ACAGAATGGG	1500
119						
120	AAGAACTACA	GCCTCAAGGC	ATCCAGCACA	AAGTCTGAGA	GCTTGATGAA	1550
121 122	CACCCATICTIC	. Camcmacaaa	3.0003.00003.3.3	~~~~~~~~~	G3.77.67.57.5	
123	GAGCCAIGIC	CATCTACAAA	ATTATTCAAA	GGCGGATAGG	CATCCTGTGA	1600
124	CTGCGCTGGA	GAAAATAATG	GAGTCAAGTT	TTTCAGCTCC	ССВСТССТТС	1650
125		_			00.0100110	1030
126	CCAGAAGTCA	CTTCTCCTGA	CCGAGGAAGC	CAGCCTATCA	AGCACCACAG	1700
127						
128 129	CCCAGGACAA	AGGAGTGGGA	TGTTGCATAG	GAATACTTTC	AGAAGGGCAC	1750
130	CACCCTCACC	CCGAAGTCGA	СФСССФССФ	MMCM3 CC3 CC	200200000	1000
131	CACCICACC	CCGAAGICGA	CIGGGIGGIA	TIGIAGGACC	AGCATATCAA	1800
132	CAACTTGAAG	AATCAAGAAT	TCCAGACCAG	GATACGATAC	CTTGCCAAGG	1850
133						
134	GATAGAGGTC	AGGAAGACTA	TATCCCACCT	GCCTATACAG	CTGTGGTGTG	1900 .
135						
136 137	TTGAAAGACC	CCTGGACTTA	AAGTATGTGT	CCAATGGCTT	AAGAACCCAA	1950
138	CAAAATGCAT	СААТАААТАТ	CCD ACTCCCT	TCAACACACA	CAAACCCCTA	2000
139		0.2	CCARCIGCCI	ICANONGAGA	CAAACCCCTA	2000
140	TTTTAATAGC	TTGGATCAAA	AGGACCTGGT	GGGTTATTTA	TCCCCAAGGG	2050
141						
142	CCAATTCTGT	GCCCATCATC	CCGTCGATGG	GTCTAGAAGA	AACCTGCATG	2100
143 144	CAAAMGGGAG	GG3 mmmcmc3	22m21112			
145	CAAATGCCAG	GGATTTCTGA	CGTCAAAAGC	ATTAAATGGT	GCAAAAACTC	2150
146	CTACTCCGCT	GACATTGTCA	АССССАСТАТ	CCCACTCACT	ር እ ጥጥረጥ ርጥጥጥር	2200
147				COCHOTCAGI	CHITCHIC	2200
148	TAGAAGAACA	ACAGGAAGTG	AAAATATTAC	TAGAGACTGT	GCAGGAACAG	2250
149						
150	ATCCGGATTC	TGACTGATGC	CAGACGGTCA	GAAGACTTCG	AACTGGCCAG	2300
151 152	<u> </u>	CACCACACTO	CC3 CCC3 3 3 3 5	03.03.00cc===	amaaaaaa	2252
172	CAIGGAAACI	GAGGACAGTG	CGAGCGAAAA	CACAGCCTTT	CTCCCCCTGA	2350

RAW SEQUENCE LISTING PATENT APPLICATION US/09/480,977

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153	INPUT											
153 154	GTCCCACGGC CAAATCAGAA CGAGAGGCAC AATTTGTCTT AAGAAATGAA 2400											
155	2400											
156	ATACAAAGAG ACTCTGTGCT AACCAAGTGA CTGGAAATGT AGGAATCTGT 2450											
157												
158	GCATTATATG CTTTGCTAAA CAGGAAGGAG AGGAAATTAA ATACAAATTA 2500											
159												
160	TTTATATGCA TTAATTTAAG AGCATCTACT TAGAAGCC 2538											
161	(0)											
162	(2) INFORMATION FOR SEQ ID NO:2:											
163 164	(i) CEQUENCE GUADAGEDIGETCE											
165	(i) SEQUENCE CHARACTERISTICS:											
166	(A) LENGTH: 713 amino acids (B) TYPE: Amino Acid											
167	(B) TYPE: Amino Acid (D) TOPOLOGY: Linear											
168	(b) Totologi. Hineai											
169	(ix) FEATURE:											
170	(A) NAME/KEY: Mouse NRG3 (mNRG3)/amino acid seq.											
171	(B) LOCATION: 1-713											
172	(C) IDENTIFICATION METHOD:											
173	(D) OTHER INFORMATION:											
174												
175	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2:											
176												
177	Met Ser Glu Gly Ala Ala Gly Ala Ser Pro Pro Gly Ala Ala Ser											
178	1 5 10 15											
179 180	Alo Alo Alo Gon Alo Giu Giu Giu mini ali ali ali ali											
181	Ala Ala Ala Ala Ser Ala Glu Glu Gly Thr Ala Ala Ala Ala Ala 20 25 30											
182	20 25 30											
183	Ala Ala Ala Gly Gly Gly Pro Asp Gly Gly Gly Glu Gly Ala											
184	35 40 45											
185	40 40											
186	Ala Glu Pro Pro Arg Glu Leu Arg Cys Ser Asp Cys Ile Val Trp											
187	50 55 60											
188												
189	Asn Arg Gln Gln Thr Trp Leu Cys Val Val Pro Leu Phe Ile Gly											
190	65 70 75											
191												
192	Phe Ile Gly Leu Gly Leu Ser Leu Met Leu Leu Lys Trp Ile Val											
193	80 85 90											
194 195	Val Cly Ser Val Lyo Cly Thro Val Dee The Arm You Val Arm Co.											
196	Val Gly Ser Val Lys Glu Tyr Val Pro Thr Asp Leu Val Asp Ser 95 100 105											
197	95 100 105											
198	Lys Gly Met Gly Gln Asp Pro Phe Phe Leu Ser Lys Pro Ser Ser											
199	110 115 120											
200												
201	Phe Pro Lys Ala Met Glu Thr Thr Thr Thr Thr Thr Ser Thr Thr											
202	125 130 135											
203												
204	Ser Pro Ala Thr Pro Ser Ala Gly Gly Ala Ala Ser Ser Arg Thr											
205	140 145 150											

RAW SEQUENCE LISTING PATENT APPLICATION US/09/480,977

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														IN	PUT S.
206 207	Pro	Δsn	Δra	Tle	Ser	Thr	Ara	Len	Thr	Thr	Tlo		7~~	Ala	D
208		71011	9	110	155	1111	Arg	neu	1111	160		TILL	Arg	Ald	165
209										100					103
210	Thr	Arg	Phe	Pro	Gly	His	Arg	Val	Pro	Ile	Arq	Ala	Ser	Pro	Arg
211					170		Ū			175	_				180
212															
213	Ser	Thr	Thr	Ala	Arg	Asn	Thr	Ala	Ala	Pro	Pro	Thr	Val	Leu	Ser
214					185					190					195
215					_										
216	Thr	Thr	Ala	Pro		Phe	Ser	Ser	Ser			Gly	Ser	Arg	
217					200					205					210
218 219	Dro	Mot	Dwo	~1	»1.	Dava	0	m1	~1		34- L		a .	_	_
220	PIO	Met	PIO	GIY	215	Pro	ser	Thr	GIN	220	Met	Pro	ser	Trp	
221					213					220					225
222	Thr	Ala	Ala	Tvr	Δla	Thr	Ser	Ser	Tyr	T.A11	His	Δen	Ser	Thr	Pro
223				-1-	230		501	001	-1-	235	*****	rop	Der	1111	240
224															-10
225	Ser	Trp	Thr	Leu	Ser	Pro	Phe	Gln	Asp	Ala	Ala	Ala	Ala	Ser	Ser
226					245				-	250					255
227															
228	Ser	Ser	Pro	Ser	Ser	Thr	Ser	Ser	Thr	Thr	Thr	Thr	Pro	Glu	Thr
229					260					265					270
230	_	~1		_	_				_						
231 232	ser	Thr	ser	Pro		Phe	His	Thr	Thr		Tyr	Ser	Thr	Glu	_
232					275					280					285
234	Ser	Glu	Шie	Dhe	Lare	Dro	Cvc	7~~	A an	Tara	7 an	T 011	7 T -	Tyr	C
235		0+4	1115	1110	290	110	Cys	Arg	ASP	295	Asp	пеп	AIA	TYL	300
236										2,7,5					300
237	Leu	Asn	Asp	Gly	Glu	Cys	Phe	Val	Ile	Glu	Thr	Leu	Thr	Gly	Ser
238			-	-	305	•				310				1	315
239															
240	His	Lys	His	Cys	Arg	Cys	Lys	Glu	Gly	Tyr	${\tt Gln}$	Gly	Val	Arg	Cys
241					320					325					330
242	•	~ 1.	-1	_	_	_		_	_						_
243 244	Asp	GIn	Pne	Leu		Lys	Thr	Asp	Ser		Leu	Ser	Asp	Pro	
244					335					340					345
246	Δen	uic	T.211	Glaz	т1а	Gl II	Dho	Mot	C1.,	C0~	C1	7 an	7707	TT	~ 1~
247	r o b	.1.1.0	Leu	G-T A	350	GIU	FIIE	ייבנ	GIU	355	GIU	Asp	val	Tyr	360
248					J J U					223					300
249	Arg	Gln	Val	Leu	Ser	Ile	Ser	Cvs	Ile	Ile	Phe	Glv	Ile	Val	Tle
250	•			_	365			-1-		370		1			375
25															

SEQUENCE VERIFICATION REPORT PATENT APPLICATION US/09/480,977

DATE: 03/17/2000 TIME: 02:47:11

INPUT SET: \$35068.raw

Line

Error

Original Text

SEQUENCE MISSING ITEM REPORT PATENT APPLICATION US/09/480,977

DATE: 03/17/2000

TIME: 02:47:11

INPUT SET: S35068.raw

<< THERE ARE NO ITEMS MISSING >>

SEQUENCE CORRECTION REPORT PATENT APPLICATION US/09/480,977

DATE: 03/17/2000 TIME: 02:47:11

INPUT SET: \$35068.raw

Line

Original Text

Corrected Text